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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/599,542	06/23/2000	Warren L. Braun	05380003AA	1198

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EXAMINER

TRAN, HAI V

ART UNIT PAPER NUMBER

2623

DATE MAILED: 07/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/599,542	<b>Applicant(s)</b> BRAUN, WARREN L.	
	<b>Examiner</b> Hai Tran	<b>Art Unit</b> 2623	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 May 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 05/02/2006 has been entered.

### ***Response to Arguments***

Applicant's arguments filed 05/02/2006 have been fully considered but they are not persuasive.

Applicant argues, "The distinctive self-polling or self-scanning feature of the invention is supported by the provision of an independent time base at the system termination section which is responsive to a broadcast time signal...*but will do so autonomously and without downstream signaling for interrogation or synchronization.*"

In response the Examiner respectfully disagrees with Applicant because Applicant 's specification page 16, lines 20-Page 17, lines 30 clearly indicates that the system termination section is NOT *autonomously* responsive to a broadcast time slot *without downstream signaling for interrogation or synchronization*, as applicant alleged! In view of that, the Applicant's invention DOES need for at least an interrogation signal through polling frequency control 25 or even an synchronization signal to be transmitted

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downstream for resetting the remote time slot counter 24' so that all counters 24 and 24' to be the same, as described in Applicant 's specification.

Applicant argues, "any structure of Ritter which is remotely readable on the time base at the termination section of the system is necessarily (and explicitly disclosed to be ) entirely dependent on the time base at the central facility and not independent thereof as recited in claim 18 as finally rejected and claim 1 as now amended."

In response, the Examiner respectfully disagrees with Applicant because Ritter clearly discloses the time base at the termination section of the system is entirely independent on the time base at the central facility (The principle change is that solid state switching circuit 120 now switches the signal from the output driver circuit 121 to the individual output channels at a specific time after receipt of a time reference pulse. This time reference pulse is developed in the subscriber unit... see Col. 6, lines 50-62) .

Applicant further argues, "Clearly, the Examiner's continued reliance on interrogator-responder system is improper and is also indicative of a lack of understanding of the meritorious effects of the invention (such as autonomous self-scanning or self-polling and the avoidance of downstream signaling for interrogation or synchronization) resulting in insufficient consideration having been given to the recitations of the claims which support such meritorious effects."

In response, the Examiner respectfully disagrees with Applicant because

1) It is noted that the features upon which applicant relies (i.e., autonomous self-scanning or self-polling and the avoidance of downstream signaling for interrogation or synchronization)) are not recited in the rejected claim(s).

2) Claim 12 clearly indicates that Applicant's invention clearly requires a means for controlling polling frequency, for example el. 25 of Applicant Fig. 2, for transmitting a pulse or tone burst downstream to alter comparator function correspondingly at the directional couplers 14 or 40, see Applicant specification at page 17, lines 24-30.

3) Applicant invention further requires a reset synchronization transmitter 26 which emits, for example a pulse or a tone burst to reset the remote time slot counter 24' so that all time slot counter 24' (at the terminal section 40) and time slot counter 24 (at the transmitter section 20) to be the same (see Applicant specification page 17, lines 2-8).

In view of that the Examiner believes Applicant confuses himself or does not carefully review his or her own specification. As such the Examiner maintains the rejection.

### **Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1 , 7-11, 13-18 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ritter (US 3619783) in view of Citta (US 4553161).

Claim 1, Ritter discloses a signal distribution system (Fig.1) including:

A communication path between a central facility 10 including signal source and a termination section including a plurality of cable drops (Col. 2, line 47-Col. 3, lines );

A condition detector (Fig. 12; 420) at respective ones of the plurality of cable drops (Col. 7, lines 73-Col. 8, lines 35);

Means (Fig. 12, 410) for providing a sequence of tones responsive to the condition detector (Col. 8, lines 27-35);

Means for coupling the sequence of tones to the communication path during a time slot determined by a time base at the termination section of the communication path (Col. 8, lines 35-45); and

Means for decoding the sequences of tones at the central facility in accordance with respective time reference (slot) determined by a time base at the central facility, the respective time reference (slots) including a time reference slot) corresponding to the time reference (slot) as determined by the time base at the termination section of the communication path (Col. 6, lines 55-Col. 7, lines 32).

Ritter further discloses the time base at the termination section of the system is entirely independent on the time base at the central facility (The principle change is that solid state switching circuit 120 now switches the signal

from the output driver circuit 121 to the individual output channels at a specific time after receipt of a time reference pulse. This time reference pulse is developed in the subscriber unit... see Col. 6, lines 50-62). In view of that the time reference pulse is time slot determined by time base (terminal clock) of the terminal section. Moreover Ritter 's central facility inherently has a time base (central facility clock) for Data synchronization and Data communication purposes. As such, time base (terminal clock) of the terminal section is independent from the time base (central facility clock) of the central facility and responsive to a broadcast time signal (i.e., synchronization time).

Ritter does not clearly disclose respective time slot determined by a time base at the central facility including a time slot corresponding to the time slot as determined by the time base at the termination section of the communication path.

Citta, in an analogous art, discloses respective time slot determined by a time base (the time base inherently must have in order to generate the time slot) at the central facility, the respective time slots including a time slot corresponding to the time slot as determined by the time base (the time base inherently must have in order to generate the time slot) at the termination section of the communication path (Col. 7, lines 24-64). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ritter with time slot synchronization for two-way communication in CATV, as taught by Citta, so that upstream data packets are transmitted in VBI-

synchronized time slots for reducing data transmission errors and increasing data throughput to the CATV headend in a multi-subscriber contention system, as suggested by Citta (Col. 7, lines 59-64).

Claim 7, Citta further discloses "wherein the time base includes a counter for counting time slots" (Fig.1 and 4; Col. 7. lines 55);

Claim 8, "a comparator responsive to the counter for identifying time slots corresponding to respective ones of the plurality of cable drops" is further met by Citta (Col. 4, lines 15-45);

Claim 9, Citta further discloses means for latching an output of the condition detector and wherein the comparator is responsive to an output of the means for latching and the counter for controlling the means for generating the sequences of tones (Fig. 1; Col. 4, lines 45-50; Col. 4, lines 24-55);

Claim 10, "a time base at the central facility and means for counting time slots at the central facility " is further met by Ritter in view of Citta because Citta's headend must have a corresponding mean for counting time slots (Col. 7, lines 55-65).

Claim 11. "means for comparing an output of the means for counting time slots and an output of the means for decoding the sequence of tones" is further met by Ritter in view of Citta so the central facility is able to determine if all the



interrogated subscribers did received all transmitted data and to further determine the status of the interrogated devices, as disclosed (Ritter, Col. 8, lines 40-45).

Claim 13, "means for resetting the counter" is further met by Ritter in view of Citta (Col. 7, lines 34-38) for the obvious reason of synchronization between each time slot.

Claim 14, "means for synchronizing the counter with the means for counting time slots at the central facility" is further met by Ritter in view of Citta so the system able to perform as discussed in claims 10-11.

Claim 15-17, Ritter in view of Citta inherently stores power for operation of condition detector by providing sequences of tones as discussed from the previous claims and modulate the carrier signal in the CATV environment in which the frequency of the carrier signal is approximately 25 MHZ (Col. 7, lines 15- 20).

Claim 18, as discussed with respect to claims 1, 7 and 8.

Claim 22, Ritter in view of Citta inherently storing power for performing the assigning and selectively coupling steps with electrical circuits so to perform as disclosed.

2. Claim 2, 4-5, 12 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ritter (US 3619783) in view of Citta (US 4553161), and further in view of Sullivan (US 3757035).

Claim 2, Ritter in view of Citta further discloses wherein the means for providing the sequence of tones (Ritter; Col. 3, lines 5-30; Col. 8, lines 14-33).

Ritter does not clearly disclose the sequence of tones is a sequence of tone pairs

Sullivan discloses the means for providing the sequence of tone pairs (Fig. 9; Col. 25, lines 62-65+); Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ritter in view of Citta, with the use of sequence of tone pairs, as taught by Sullivan, so to reduce bandwidth needed for transmitting the selection and interrogation signal, as suggested by Sullivan (Col. 25, lines 64-65).

Claim 4, Sullivan further discloses wherein the condition detector detects at least one of power outage and ingress (Col. 18, lines 45-52) for obtaining condition of remote receiver at the subscriber station for maintenance purpose.

Claim 5, Sullivan further discloses wherein the system is divided into plurality of sectors (Branches; Col. 8, lines 45-55) for network management purposes.

Claim 12, Sullivan further discloses mean for controlling polling frequency of the cable drops (the central station cyclically transmits the interrogation signals to remote stations; Fig.3);

Claim 23 is analyzed with respect to claim 2.

3. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ritter (US 3619783) in view of Citta (US 4553161), and further in view of Sullivan (US 3757035), and further in view of Ortel (US 5712897).

Claim 3, Ritter in view of Citta and Sullivan does not disclose wherein the means for decoding provides a digital signal input to a printer.

Ortel in a similar art discloses wherein the means for decoding provides a digital signal input to a printer (Fig. 3, el. 303; Col. 4, lines 49-53). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ritter in view of Citta and Sullivan with Ortel so to produce an on-line description of the problem detected including location of the network element affected (Col. 4, lines 50-54).

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4. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ritter (US 3619783) in view of Citta (US 4553161), and further in view of Lo Galbo et al. (US 5280629).

Claim 6, Ritter in view of Citta does not clearly disclose wherein the time base is provided at directional coupler providing communication links to a plurality of the cable drops.

Lo Galbo (Fig. 2, el. 501) discloses the time base is provided at directional coupler providing communication links to a plurality of the cable drops (Col. 5, lines 53-Col. 6, lines 6).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ritter in view of Citta with Lo Galbo so to allow the remote system to broadcast its message synchronously in which the synchronized system would compensate the efficiency of the system without directly evaluating the distribution channel delay.

5. Claims 19, 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ritter (US 3619783) in view of Citta (US 4553161), and further in view of Ortel (US 5712897).

Claim 19, Ritter in view of Citta does not clearly disclose "printing indicia corresponding to the sequence of tones."

Ortel in a similar art discloses wherein the means for decoding provides a digital signal input to a printer (Fig. 3, el. 303; Col. 4, lines 49-53). Therefore, it

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would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ritter in view of Citta with Ortel so to produce an on-line description of the problem detected including location of the network element affected (Col. 4, lines 50-54).

Claims 20 and 21 are analyzed with respect to claim 19.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai Tran whose telephone number is (571) 272-7305.

The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher S. Kelley can be reached on (571) 272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HT:ht  
06/23/2006

  
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